Scope

Outline description of the sequence and procedures to be used during the SPIRE Warm Unit (WU) Checkout Procedure *after* integration with the Herschel EQM Payload Module at EADS Astrium in Ottobrun. The WU is the SPIRE Warm Electronics, which essentially consists of the DPU, DRCU and the power bench. The pre-requisites for the test are briefly described followed by a table setting out the steps in the test sequence; the names of the procedures to be executed from CCS and the references to any manual procedures required; and the estimated duration of each part of the test.

Change notes

Applicable Documents

AD1   SPIRE Functional Test Specification - SPIRE-RAL-DOC-001652, Issue 1.3D, 16/02/2005

Reference Documents

Prerequisites for the Short Warm Functional Test

- The SPIRE WU, consisting of the SPIRE Warm Electronics, integrated with the CCS

Instrument EGSE (I-EGSE) set up:
- SPIRE MIB installed on SCOS machine.
- SPIRE build of the HCSS and QLA installed
- CCS is up and running
- Scripts for the tests are available to the CCS

Prerequisites for data analysis
- SCOS is running on I-EGSE
- QLA scripts ready for display of data and FITS output on I-EGSE
- IDL present on local machine (laptop if necessary) with access to I-EGSE FITS filestore via FTP or other method

Warm Unit Switch On sequence:

Step	Description	Procedure Name	Estimated Duration/ minutes
1	Switch on DPU and boot	CCS-SPIRE-DPU-ON Manual switch on of the DPU followed by execution of the boot up procedure	5
2	Switch on the DRCU	CCS-SPIRE-DRCU-ON Manual switch on of the DRCU followed by start of periodic House Keeping telemetry generation	5

Outline Test sequence:

Step	Description	Procedure Name	Estimated Duration/ minutes
1	SCU Science Packet Generation Check	CCS-FUNC-SCU-01	5
2	SCU Science data check	CCS-FUNC-SCU-02	5
3	SCU Test pattern test	CCS-FUNC-SCU-08	5
4	SCU PCAL check	CCS-FUNC-SCU-04	5
5	SCU SCAL check	CCS-FUNC-SCU-05 (AD2)	10
6	SCU cooler heaters check	CCS-FUNC-SCU-07	10
7	SCU DC Thermometry Check	CCS-FUNC-SCU-03 **DC thermometry monitoring will be left on at the end of this test**	5
8	SCU AC Thermometry Check	CCS-FUNC-SCU-06 **AC thermometry monitoring will be left on at the end of this test**	5
9	DCU Science Packet generation check	CCS-FUNC-DCU-01	5
10	DCU Science data check	CCS-FUNC-DCU-02	5
11	DCU Test pattern test	CCS-FUNC-DCU-03	5
12	DCU Photometer and Spectrometer LIAs switch on. (Only one procedure as the QM1 DRCU switches on both sets of LIAs)	CCS-FUNC-DCU-04-PS • **May require manual intervention to reset the over current limiter on the SPIRE DRCU Power Bench.** • **The LIAs will be switched off after the test.**	10